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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,527	12/26/2000	Woo-Hyuk Choi	8733.345.00	2148

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EXAMINER

NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 07/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/745,527

Applicant(s)
Choi

Examiner
Dung Nguyen

Art Unit
2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 5, 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above, claim(s) 11-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-10 and 22-31 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Dec 26, 2000 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election of Group I (claims 1-10 and 22-31) in Paper No. 7 (filed 06/05/2003) is acknowledged.

Because applicant did not state election without traverse or distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference number 22 (22

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should be 21 in figure 2?). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 1-4 and 22-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al., US Patent No. 6,500,702.

The above claims are anticipated by Lee et al. figure 2D which disclose a thin film transistor substrate comprising:

- . a substrate (11);
- . a gate electrode (12a);
- . a gate insulating layer (13);
- . an active layer (14);

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- . a source electrode (16a);
- . a drain electrode (16b) having a bent shape and having a first side facing the source electrode and a second side;
- . a protection layer (17) cover the source electrode only and the first side of the drain electrode;
- . a pixel electrode (18) overlapped and contacted with the second side of the drain electrode and gate insulating.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-10 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al., US Patent No. 6,500,702, in view of Applicant's admitted prior art (APA), figures 2 and 4.

Regarding claims 5-6, 8-9, 26-27 and 29-30, Lee et al. disclose the claimed invention as described above except for a gate pad, a gate pad electrode as well as a data pad and a data pad electrode. APA's figures 2 and 4 do disclose that a gate/data line (21/24) having a gate/data pad (21/23) electrically contacting a gate/data pad electrode (62/60) through a gate/data pad hole (see

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figure 4) as claimed. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ the Lee et al. device having a gate/data pad connected to gate/data line as shown by APA because it is a common practice in the LCD art in order to connect an LCD device to external circuit through gate/data pad electrode.

Regarding claims 7, 10, 28 and 31, the modification to Lee et al. disclose the claimed invention except for the gate pad electrode being contact the substrate as well as the data pad electrode being contact the gate insulation layer. It would have obvious to one having ordinary skill in the art at the time the invention was made to form a gate/data pad electrode contacting a substrate/a gate insulating layer since the examiner take Official Notice of the equivalence of the a gate/data pad electrode contacting/ not contacting a substrate/a gate insulating layer in a LCD art since applicant has not disclosed such contacting between a substrate and a gate pad electrode and/or a gate insulating layer and data pad electrode solve(s) any stated problem or is for any particular purpose and it appears that the invention would perform equally well of contacting and non-contacting of such gate/data pad electrode and substrate/gate insulating layer.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The Examiner can normally be reached on Monday-Thursday

If attempts to reach the Examiner by telephone are unsuccessful, The Examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7730 for regular communications and 703-308-7726 for After Final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN
07/10/2003



Dung Nguyen
Patent Examiner
GAU 2871